BCA CTIS/ Lib

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GSE/D-22 **1212**

FUNDAMENTALS OF COMPUTER SCIENCE

BCA-CTIS-101

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory.

(Compulsory Question)

1. (a) Differentiate between positional and non-positional number system. 3

(b) What are decision trees ? Discuss. 3

(c) Discuss bit, byte, word and nibble. 3

(d) Differentiate between LAN and WAN. 3

Unit I

2. (a) Discuss the functional components of a computer system. 6

(b) Discuss the applications of computers in various fields. 6

3. (a) Convert the octal 623.77 to decimal, binary and hexadecimal. 6

(b) Demonstrate by means of truth tables the validity of the following theorems of Boolean algebra : 6

(i) The associative laws

(ii) De Morgan's theorems for three variables.

Unit II

4. (a) Discuss the problem solving process. 6

(b) What is the need of documentation ? Also discuss its different forms. 6

5. (a) What is a Flow chart ? Discuss the symbols available for program flow chart. Also write the advantages of flow charts. 6

(b) How are algorithms and pseudocodes useful in problem solving ? Which one is more useful and why ? 6

Unit III

6. Discuss various sequential access and direct access magnetic storage devices. 12

7. (a) What is an image scanner ? Differentiate between a flatbed and a hand-held image scanner. 6

(b) What are the differences between impact and non-impact printers ? Explain along with their relative advantages and disadvantages. 6

Unit IV

8. What is Internet ? Discuss the basic services provided by the Internet. Also elaborate various applications of Internet. **12**

9. (a) What is e-Mail ? Discuss various features of e-Mail. **6**

   (b) What are the advantages of using e-Mail Service ? Discuss. **6**

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GSE/D-22 1213

PROGRAMMING WITH C

BCA-CTIS-102

Time : Three Hours] [Maximum Marks : 60

Note : Q. No. **1** is compulsory. In addition, attempt *Four* more questions selecting exactly *one* question from each unit. All questions carry equal marks.

(Compulsory Question)

1. (a) What is the role of comments ? How comments can be written in C ?

(b) Differentiate between getch(), getche() and getchar().

(c) Differentiate between break and continue.

(d) What is Recursion ?

(e) Why goto statement should be avoided in a program ?

(f) How arrays can be initialized ?

(g) What is main difference between structure and union ?

(h) How can you declare a string in C ? **8×1.5=12**

Unit I

2. (a) Explain various data types in C. 6

   (b) Explain structure of a C program using suitable example. 6

3. (a) Describe the various format specifiers used in printf() and scanf() function in detail. 6

   (b) What are the various ways to read and write a string in C ? 6

Unit II

4. Describe various operators in C along with their hierarchy and associativity. 12

5. (a) Write a program in C to find first n prime numbers. 6

   (b) Discuss various types of loops used in C language using suitable examples. 6

Unit III

6. What is meant by storage classes ? Explain various types of storage class along with their major characteristics. 12

7. Write a program in C to multiply three matrices. The order of the matrices are $(M1)_{nr1*nc1}$, $(M2)_{nr2*nc2}$, and $(M3)_{nr3*nc3}$. 12

Unit IV

8. (a) Write a user-defined function to find length of a string. **6**

   (b) Write a program in C to read the data of students and display the same using structure. **6**

9. (a) What is a pointer ? Discuss various types of operations that can be performed on pointers. 6

   (b) How can you create one-dimensional and two-dimensional arrays using pointers ? Explain. **6**

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GSE/D-22 1214

MATHEMATICAL FOUNDATION OF COMPUTER SCIENCE

BCA-CTIS-104

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. Explain the following :

(a) Equivalence Relations **3**

(b) Graph Isomorphism **3**

(c) Importance of Statistics in different fields of Research **3**

(d) Discrete and Continuous Random Variables. **3**

Unit I

2. Discuss the following with example : **12**

(i) Set Operations

(ii) Partial Order Relation

(iii) Tautologies

(iv) Contradictions

(v) Contingency

(vi) Quantifiers.

3. (a) Examine the linear independence of the following set of vectors : 6

(i) $\{(1,2,3), (1,0,0), (0,2,3)\}$ in R^3

(ii) $\{(1,1,1), (1,2,3), (0,1,2)\}$ in R^3.

(b) Explain the basis and dimension of a Vector Space. 6

Unit II

4. (a) Explain the Symmetric and Skew Symmetric Matrices. 6

(b) Solve the following linear equations by Gauss Elimination Method : 6

$$10x + y + z = 12$$
$$2x + 10y + z = 13$$
$$2x + 2y + 10z = 14.$$

5. (a) Explain the Bipartite Graphs and Complete Bipartite Graphs. Draw the Complete Bipartite Graphs $K_{3,4}$ and $K_{1,5}$. 4

(b) Discuss Graph Coloring and its applications. 4

(c) Explain Euler and Hamilton Paths and Circuits with example. 4

Unit III

6. (a) What is the difference between Time Series and Cross Sectional Data ? 6

(b) The Harmonic Mean of 20 items was found to be 25 and that of 30 items was found to be 40. Find the combined Harmonic Mean. 6

7. (a) Find the Arithmetic Mean and Standard Deviation for the following data : 6

x	f
10	2
11	7
12	11
13	15
14	10
15	4
16	1

(b) Explain the measures of skewness and kurtosis. 6

Unit IV

8. (a) A bag contains 3 white and 4 red balls. Three balls are drawn one by one with replacement. Find the probability distribution of the number of red balls. 6

(b) State and prove Bayes' theorem in decision making. 6

9. (a) A dice is thrown 6 times. Getting an odd number is a success. What is the probability of : 6

(i) 5 successes

(ii) at least 5 successes

(iii) at most 5 successes

(iv) no success ?

(b) Define Normal Distribution and deduce the standardized form. Explain its properties being out its importance in Statistics. **6**

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GSQ/D-22 1215

WEB DESIGNING–I

BCA-CTIS-105

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. (a) Differentiate between web server and web browser.

(b) What is domain name of a website ?

(c) What are hypertext and hypermedia ?

(d) How to apply styles to different HTML elements in different ways ?

Unit I

2. What do you mean by Web Pages ? Explain the process to design them and to choose the contents of pages suitably.

3. (a) What are different web-casting techniques ?

(b) What do you mean by scripting languages ? Why are they needed in HTML pages ?

Unit II

4. (a) What do you mean by Web Programming ? Explain.

   (b) Discuss the need and importance of home page in a website.

5. Write short notes on the following :

   (a) Dynamic positioning of HTML elements

   (b) Layer Object

   (c) Style of HTML elements.

Unit III

6. (a) What are the features of an HTML document ?

   (b) How to add images in HTML pages ? Also show how to change images dynamically at web browser.

7. "Text is the most important entity in HTML and XHTML pages." Justify it by showing various features that can be applied on text in HTML using suitable examples.

Unit IV

8. (a) What are frames in HTML pages ? Also show the use of noframe tag in HTML.

   (b) Discuss the form submission methods at server side in HTML using suitable examples.

9. Write notes on the following :

(a) Margins in table

(b) Password text boxes in HTML forms

(c) Applying colors to text and other HTML elements.

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GSE/D-22 1216

OPERATING SYSTEMS

BCA-CTIS-107

Time : Three Hours] [Maximum Marks : 60

Note : Q. No. **1** is compulsory. In addition, attempt *four* more questions, selecting *one* question from each Unit. All questions carry equal marks.

(Compulsory Question)

1. (a) List the major functions of operating system. **3**

(b) Differentiate among short-term scheduler, long-term scheduler and medium-term scheduler. **3**

(c) Define Semaphore. **2**

(d) State the necessary conditions for a deadlock to occur. **2**

(e) Discuss various types of files. **2**

Unit I

2. Discuss the evolution of operating system describing various types of operating system in detail. **12**

3. What is an operating system ? Explain the need of operating system. Also discuss the architecture of operating system in detail. **12**

Unit II

4. What are the criteria for comparing CPU-scheduling algorithms ? Consider the following set of processes, with the length of the CPU-burst time given in milliseconds : **12**

Process	Burst Time	Priority
P1	10	3
P2	1	1
P3	2	3
P4	1	4
P5	5	2

The processes are assumed to have arrived in the order P1, P2, P3, P4, P5, all at time 0.

(i) Draw four Gantt charts illustrating the execution of these processes using FCFS, SJF, a non-preemptive priority (a smaller priority number implies a higher priority), and RR (quantum = 1) scheduling.

(ii) What is the trunaround time of each process for each of the scheduling algorithm in part (i) ?

(iii) What is the waiting time of each process for each of the scheduling algorithm in part (i) ?

(iv) Which of the schedules in part (i) results in the minimal average waiting time (overall process) ?

5. (a) Explain inter-process communication. What are the various issues while designing message-passing system ? 6

(b) What is meant by Multithreading ? How is it handled by an operating system ? Explain in detail. 6

Unit III

6. (a) What is critical section problem ? Explain Peterson's algorithm for solving critical section problem. 6

(b) How can we implement segmentation with paging ? Explain with suitable diagram and example. 6

7. (a) Consider the snapshot of a system : 6

	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P_0	0	0	1	2	0	0	1	2	1	5	2	0
P_1	1	0	0	0	1	7	5	0				
P_2	1	3	5	4	2	3	5	6				
P_3	0	6	3	2	0	6	5	2				
P_4	0	0	1	4	0	6	5	6				

Answer the following questions using the Banker's algorithm :

(i) What is the content of the matrix need ?

(ii) Is the system in a safe state ?

(iii) If a request from process P1 arrives for (0, 4, 2, 0), can the request be granted immediately ?

(b) Write a short note on deadlock recovery. **6**

Unit IV

8. (a) What do you mean by Demand Paging ? Explain various steps to handle a page fault. How can we evaluate the performance of Demand Paging ? Explain with examples. **6**

(b) What do you understand by directory system ? Explain various directory structures in detail. **6**

9. (a) Differentiate among contiguous, linked and indexed allocation methods. **6**

(b) How a disk-scheduling algorithm must be selected ? Explain with the help of an example. **6**

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GSE/D-22 1217

LINUX AND SHELL PROGRAMMING

BCA-CTIS-108

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) Write the following relational expression in Korn shell :

(i) $x < 9$

(ii) $x <= y$.

(b) What are shell variables ? Give one example.

(c) Explain while-loop in C-shell.

(d) What is Thrash File ?

(e) Write a note on internal linux commands.

(f) Explain if-else statement in Korn shell. **2×6=12**

Unit I

2. (a) Give a brief history of evolution of Linux Operating System. **6**

(b) Explain layered structure of Linux operating system. 6

3. (a) What is user and user group in Linux ? Explain related commands for changing ownership and group. 6

(b) Explain boot loader. 6

Unit II

4. Write syntax and purpose of the following commands : 2×6=12

(a) date

(b) who

(c) passwd

(d) bc

(e) script

(f) cut.

5. (a) What is the purpose of the following directories : 6

(i) \bin

(ii) \mmt

(iii) \etc.

(b) What is Redirection ? Explain it in detail. 6

Unit III

6. (a) Discuss various types of files supported by Linux. Also explain the use of chmod command. 6

(b) Elaborate directory structure of Linux Operating System. 6

7. (a) What is meant by path and pathname ? Explain absolute and relative Path in Linux Operating System. 6

(b) What are Filters ? Explain three types of filters. 6

Unit IV

8. (a) Define vi editor and explain its modes. 6

(b) Write a short note I/O device drivers. 6

9. (a) Differentiate among grep, egrep and fgrep. 6

(b) Define environmental variable. Explain about environmental variable used in Korn shell. 6

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GSQ/D-22 1218

COMMUNICATION SKILLS

BCA-CTIS-110

Time : Three Hours] [Maximum Marks : 40

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Attempt *four* more questions, selecting *one* question from each Unit. All questions carry equal marks.

(Compulsory Question)

1. Write short notes on the following :
   (a) Active Voice
   (b) Passive Reading
   (c) Art of Condensation
   (d) Importance of Listening.

Unit I

2. Attempt as directed :
   (a) Change the voice in the following sentences :
      (i) Good news in expected by us.
      (ii) The hunter did not aim at the bird.
      (iii) I objected to his proposal.
      (iv) Are the plants being watered by the gardener ?

(b) Correct the following sentences :

(i) Soup and Salad are too light a lunch.

(ii) I prefer this book than that.

(c) Give one word substitution of the following :

(i) One who pretends to be what he is not.

(ii) The art of beautiful handwriting.

3. Do as directed :

(a) Change the narration of the following sentences :

(i) Kittu says, "I have a toy driver."

(ii) Mohan asked his driver, "Is the car ready ?"

(iii) The beggar prayed that god might bless me.

(b) Fill in the blanks with appropriate modals :

(i) You.....write the address neatly.

(ii) Somebody.....help this poor woman.

(iii) .....I take your book ?

(c) Give synonyms of the following :

(i) Pleasure

(ii) Guidance.

Unit II

4. Attempt a detailed note on the benefits of effective reading.

5. Discuss the importance of note-making.

Unit III

6. Write a paragraph in about **150** words on any *one* of the following :

(i) Brain Drain

(ii) Role of Computers in modern life.

7. Make a precis of the following passage and assign it a suitable title :

Sympathy cannot be measured in material terms. It is a powerful emotional link between man and man. Sympathy is given or received through a sign, a warm handshake, a gesture of goodwill. Man is a social animal and as such has relations with many people. Everybody depends on others for something or the other. Powerful politicians acquire their power by winning the sympathy of the poor and downtrodden. A man that loses sympathy of his fellow beings is bound to go to the wall. Sympathy is always natural and even the most powerful rulers are overthrown when they lose the sympathy of the masses by becoming unsympathetic to them. Sympathy leads us to sincerity, selfishness and inner happiness.

Unit IV

8. Elaborate on how can one make a good presentation.

9. Discuss in detail the barriers of effective listening.

Roll No. ..... Total Pages : 03

GSM/D-22 1219

OBJECT ORIENTED PROGRAMMING USING JAVA

BCA-CTIS-301

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory. Attempt *four* more questions, selecting exactly *one* question from each Unit.

Compulsory Question

1. (a) What is meant by Java is both compiled and interpreted ?

(b) Enlist the primitive data types in Java.

(c) What is the purpose of labelled break and continue ?

(d) Can you create a multi-dimensional array in Java having different no. of element in each row ?

(e) Comment on the need of interface in Java.

(f) What is a package ?

(g) Why exception handling is required ?

(h) State the purpose of an applet. **8×1½=12**

Unit I

2. (a) What are the major features of an object oriented programming ? 6

   (b) Describe various to input/read data in Java using suitable examples. 6

3. (a) Explain Java run-time environment in detail. 6

   (b) Explain various types of operators in java using suitable examples. 6

Unit II

4. (a) Write a program in Java to find first n prime numbers. 6

   (b) Write a program in Java to create a student class storing roll_no, name, address, class and display the data using a member function. The data must be initialized via a constructor. 6

5. Write a program in Java to perform binary search from the given array. The given array is assumed to have unsorted data. 12

Unit III

6. How can you implement multiple inheritance in Java ? Explain in detail by writing a suitable program. 12

7. Differentiate between the following : 12

(i) Overloading and overriding

(ii) String and StringBuffer class.

Unit IV

8. What do you mean by multithreading ? What are the various ways to implement it in Java ? Explain by writing suitable programs. 12

9. What is an applet ? Explain its life-cycle in detail. Write a suitable program to show the life-cycle of an applet. 12

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GSM/D-22 **1220**

CLOUD TECHNOLOGY AND INFORMATION SECURITY

BCA-CTIS-302

Fundamentals of Storage and Data Centres

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory. Attempt *four* more questions, selecting *one* question from each Unit. All questions carry equal marks.

1. Answer the following questions in brief : 4×3=12
   (a) What are key challenges in managing information ?
   (b) What are different levels of RAID ? Explain in brief.
   (c) What are data centres perquisites ? Explain.
   (d) What is data centre ? Explain goals of a data centre.

Unit I

2. What are different components of Disk Drive ? How information is organized on hard disk ? How can you improve the performance of disk? Explain. **12**

3. (a) What is information life cycle ? Explain. **6**
   (b) Discuss evolution of storage technology in brief. **6**

Unit II

4. What is intelligent storage system ? What are different components of this system ? Explain. 12

5. (a) What is RAID ? What are advantages and disadvantages of using RAID ? 6

   (b) Explain RAID impact on disk performance. 6

Unit III

6. Explain roles of data centres in the enterprise and service provider environment. 12

7. Explain the following application architecture models :

   (a) Data Centre Architecture 6

   (b) N-Tier Model. 6

Unit IV

8. (a) Explain the power requirements to run all the devices in a data centre. 6

   (b) Discuss HVAC and cooling requirements of a data centre. 6

9. Write short notes on the following :

   (a) Availability of Local Technical talent 6

   (b) Selecting an existing building. 6

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GSM/D-22 **1221**

COMPUTER ORGANIZATION AND ARCHITECTURE

BCA-CTIS-304

Time : Three Hours] [Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Explain all of the following :

(a) NAND and NOR gate

(b) Arithmetic microoperation

(c) Stack organisation

(d) Instruction Pipeline. **3×4=12**

Unit I

2. (a) Explain basic theorem and properties of Boolean algebra. **8**

(b) Explain different logic operations with examples. **7**

3. Explain Adder and Subtractor in detail with examples. **15**

Unit II

4. (a) Explain the instruction cycle of a basic Computer Organisation. 8

   (b) Explain various types of instruction format of basic computers. 8

5. (a) What is Mnemonics ? Discuss memory reference instruction in detail. 8

   (b) Explain the following terms :

   (i) Design of accumulator logic 4

   (ii) Direct and indirect addressing mode. 4

Unit III

6. (a) What do you mean by address Sequencing ? Explain its working in detail. 8

   (b) Explain bus and memory transfer with suitable examples. 8

7. (a) What is a microprogram ? What are the advantages and disadvantages of microprogram control ? 8

   (b) Explain address frequency and its working in detail. 8

Unit IV

8. (a) What is program interrupt ? Differentiate between RISC and CISC. 8

(b) What do you mean by program control ? Explain various program control instructions. 8

9. Explain the following terms :

(a) Stack Organisation

(b) Program Interrupt

(c) Data transfer and manipulation

(d) Instruction Format. 4×4=16

Roll No. ..... Total Pages : 03

GSM/D-22 1222

PRINCIPLE OF VIRTUALIZATION

BCA-CTIS-305

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. (a) Explain emulation, simulation and virtualization.

(b) How do you restore a VM from a snapshot ?

(c) What is full hardware virtualization ?

(d) What's NFS in Vmware ?

Unit I

2. (a) Discuss the necessity of virtualization and describe system level virtualization in detail.

(b) What is desktop virtualization ? Why do we use desktop virtualization ? Discuss.

3. (a) What are the different types of virtualization ? Explain network virtualization.

(b) When should server virtualization be used ? When should it not be used ? Explain.

Unit II

4. (a) Discuss the steps to enable hardware virtualization in BIOS.

   (b) What are the features of Windows Virtual PC ? Discuss.

5. (a) What is virtual disk management ? How do you create and manage virtual hard drive ? Discuss.

   (b) How do you configure network connection in virtual machine ? Discuss.

Unit III

6. (a) Discuss the steps to configure Remote Desktop Environment.

   (b) What is role based provisioning ? What is the tool used for provisioning and configuration ? Discuss.

7. (a) What is Remote Desktop Web connection ? How to configure Remote Desktop web Access ? Discuss.

   (b) What are the components of Remote Desktop Services ? Discuss.

Unit IV

8. (a) What do you mean by ESXi ? Explain NFS and VMFS.

   (b) What is difference between VM and Hyper-V ?

9. (a) What is Citrix XenDesktop ? What are its core features ? Discuss.

   (b) What is the difference between vSphere and vCenter ?

Roll No. ..... Total Pages : 02

GSM/D-22 1223

SOFTWARE ENGINEERING

BCA-CTIS-307

Time : Three Hours] [Maximum Marks : 60

Note : Attempt *Five* questions in all, selecting *one* question from each Unit in addition to compulsory Q. No. **1**. All questions carry equal marks.

(Compulsory Question)

1. (a) What are the elements of system ? 2

(b) Who is System Analyst ? 2

(c) Explain Context Diagram. 2

(d) Discuss different components of Object Oriented Design. 2

(e) What is Risk Management ? 2

(f) What are the limitations of Waterfall Model ? 2

Unit I

2. What is Software Engineering ? Discuss spiral model in brief. 12

3. What is Software Development Life-cycle ? Discuss different phases of SDLC in brief. 12

Unit II

4. (a) What do you mean by cost estimation model ? Explain COCOMO model in brief. **6**

   (b) Explain Software Quality Assurance. What are its different attributes ? **6**

5. What is Software Configuration Management ? Explain the entire process of Software Configuration Management with the help of diagram. **12**

Unit III

6. What is SRS ? What are the characteristics and components of SRS ? What are the major challenges in developing a SRS document ? **12**

7. (a) Explain the concept of Data Flow Diagram. Explain different symbols used in DFD. **6**

   (b) Differentiate between cohesion and coupling. **6**

Unit IV

8. Explain in detail the entire Software Design Process. **12**

9. What are the different attributes for determining the quality of a software ? **12**

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GSM/D-22 1224

NETWORK SECURITY

BCA-CTIS-308

Time : Three Hours] [Maximum Marks : 60

Note : Q. No. **1** is compulsory. In addition to that, attempt *four* more questions selecting *one* question from each Unit. All questions carry equal marks.

(Compulsory Question)

1. (a) What is network device security ? Explain. **3**

(b) What is an application attack ? **3**

(c) What are some key problems with current public key infrastructure implementations ? **3**

(d) List some desirable characteristics of IDS. **3**

Unit I

2. (a) Discuss the security threats and countermeasures for wireless networks. **6**

(b) What is multifactor authentication ? Discuss various multifactor authentication methods. **6**

3. What is a firewall ? Discuss various types of firewall. 12

Unit II

4. (a) Discuss the types of network security vulnerabilities. 6

   (b) How do we mitigate against network security threats ? 6

5. How can network security be achieved through network devices and network technologies ? Explain. 12

Unit III

6. What is Secure Socket Layer ? Explain various SSL protocols. 12

7. Explain the following : 12

   (a) IPsec VPN

   (b) Dynamic multipoint VPN

   (c) Group Encrypted Transport VPN.

Unit IV

8. (a) Discuss the network-based intrusion detection. Describe the types of sensors that can be used in a NIDS. 8

(b) How can an IPS attempt to block malicious activity ? 4

9. (a) What are the measures used for intrusion detection ? 4

(b) Discuss the network monitoring techniques for anomaly detection. 8

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GSM/D-22 1225

PERSONALITY DEVELOPMENT

BCA-CTIS-310

Time : Three Hours] [Maximum Marks : 40

Note : Q. No. **1** is objective/short answer type questions. Attempt *Five* questions in all. Q. No. **1** is compulsory. In addition to Q. No. **1** the candidate has to attempt *Four* more questions selecting *one* question from each Unit. All questions carry equal marks.

1. Short answer type questions. All the questions are compulsory. **8**

(a) What is the archetype representing feminine side of the males called ?

(b) Give full form of MMPI.

(c) What is a combination of Aptitude Tests called ?

(d) Write the formula for measurement of IQ.

(e) Write any *four* C's of Francis Begin's model of oral communication.

(f) Speech Mechanism is a significant aspect of.....

(g) Name any *two* aspects of oral presentation.

(h) Give one line definition of Resume.

Unit I

2. What is non-verbal communication ? Discuss in detail the types and significance of Kinesics. **8**

3. What do you mean by etiquettes ? Write brief notes on social, business and dining etiquettes. **8**

Unit II

4. Write a note on the interpersonal skills. Which factors are to be kept in mind while dealing with seniors and juniors ? Discuss. **8**

5. What is role-playing ? How does it act as an effective tool in social communication ? Illustrate with a case study. **8**

Unit III

6. Define team behaviour. Draw a flow chart of a team. Describe the factors which determine a successful behaviour of an effective team. **8**

7. What is the significance of oral presentation in effective communication ? Which factors determine the success of a presentation ? Discuss. **8**

Unit IV

8. Prepare a Resume to apply for a job in a multi-national company. 8

9. What is the intent and purpose of conducting an interview ? Discuss in detail various types of interviews. 8